

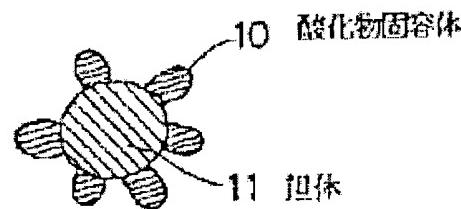
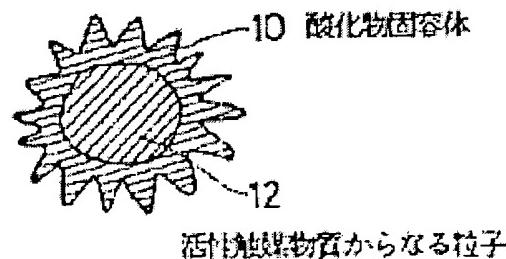
FUEL REFORMING CATALYST AND FUEL CELL USING THE CATALYST

Patent number: JP3245850
Publication date: 1991-11-01
Inventor: MIHANA TAKESHI; others: 04
Applicant: HITACHI LTD
Classification:
 - **international:** B01J35/02; B01J23/74; B01J35/10; C01B3/26;
 H01M8/06
 - **european:**
Application number: JP19900041300 19900223
Priority number(s):

Abstract of JP3245850

PURPOSE: To maintain a practical active life for a relatively long-duration by composing a fuel reforming catalyst of an active catalytic substance and at least one other component element which suppresses the active catalytic substance from being sintered.

CONSTITUTION: An oxide solid solution 10 comprised of an active catalytic substance such as Ni, Rh, etc., and at least 1 other component element such as Mg, Al, etc., which suppresses the active catalytic substance is carried on the surface of a support 11. The ratio of the active catalytic substance to the other component element is set to be 5-20 atom %. In the case that no support is used and that the oxide solid solution 10 of the active catalytic substance and at least 1 other component element which suppresses the active catalytic substance from being sintered is put on the active catalytic substance, the average pore size, porosity, and specific surface area are set to be 0.5-10 ppm, 40-60%, and $\leq 3 \text{ m}^2/\text{g}$, respectively. In this way, a practical active life is maintained for a relatively long duration. Using the catalyst for a fuel cell, a fuel reforming apparatus, etc., the service life is lengthened and driving cost is decreased.



Data supplied from the esp@cenet database - Patent Abstracts of Japan